COSC 341/342   **Programming Languages [for Educators]**   **WINTER 2009**

T Th 11:00 - 12:15pm   **302 PH**   **COSC 341-0**   **CRN: 23004**
                                                COSC 342-0   **CRN: 23005**

Instructor: Susan Haynes   `shaynes @ emich.edu`   `emunix.emich.edu/~haynes`

Text: Scott, Programming Language Pragmatics, 2nd Ed, Morgan Kaufmann
Note: This is a different text than what section #1 is using!

Description: Formal definition of programming languages; structure of simple statements; global properties of algorithmic languages; data description; run-time representation of programs; procedural languages such as C and C++, non-procedural languages such as Lisp or Prolog. Credit will not be given for both COSC 341 and COSC 342.

Learning Objectives:
1. Explain the compilation process and the interpretation process.
2. Read and create BNF to describe syntax
3. Read and create one semantic description for a language.
4. Understand design alternatives for
   * control structures
   * parameter passing
   * scoping
   * types and type definition
5. Write programs in at least two different paradigms (functional, logical, OO, ...) in at least two languages neither of which is the "teaching language" of the department.

Prerequisites: COSC 211 and COSC 221.

Student work and assessment:
Programming:	40%	
Hourly #1:	20%	
Hourly #2:	20%	
Final (cumulative):	20%	(Thursday, April 23, 11:00 - 12:30pm)

Grades:
91 - 100%   A range
81 - 90%   B range
71 - 80%   C range
61 - 70%   D range

Academic Honesty: I expect, and your fellow students expect, that every person in this class will adhere to the highest ethical standards. All work given to me for grading must be your own independent work. If you act in an academically or ethically dishonest manner, you will receive an E for the final grade and I will submit your name to the dean of students for dismissal or academic sanction.

CAVEAT: This document may be modified, with appropriate notification to students, as pedagogically necessary or advisable.

PROPOSED COURSE CALENDAR (may change as the term progresses)

#	Day	Date	Topic/Activity
1	T	6-Jan	Chpt 1
2	Θ	8-Jan	Chpt 2
3	T	13-Jan	Chpt 2
4	Θ	15-Jan	Lisp
5	T	20-Jan	Lisp
6	Θ	22-Jan	Chpt 3
7	T	27-Jan	Chpt 3
8	Θ	29-Jan	Chpt 4
9	T	3-Feb	Chpt 4
10	Θ	5-Feb	Hourly #1
11	T	10-Feb	prolog
12	Θ	12-Feb	prolog
13	T	17-Feb	Chpt 5
14	Θ	19-Feb	Chpt 6
	T	24-Feb	Winter recess - no class
	Θ	26-Feb	Winter recess - no class
15	T	3-Mar	Chpt 6
16	Θ	5-Mar	Chpt 7
17	T	10-Mar	Chpt 7
18	Θ	1-Mar	python
19	T	17-Mar	python
20	Θ	19-Mar	Chpt 8
21	T	24-Mar	Chpt 8
22	Θ	26-Mar	Hourly #2
23	T	31-Mar	Chpt 9
24	Θ	2-Apr	Chpt 9
25	T	7-Apr	ruby
26	Θ	9-Apr	ruby
27	T	14-Apr	Chpt 12
28	Θ	16-Apr	Last class meeting
	T	21-Apr	
	Θ	23-Apr	Final exam 11:00 - 12:30pm